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ABSTRACT

The purpose of the LARC (Language Acquisition Resource Center) project is to implement a home-based program which will help children of ages six months to five years develop communication skills. The program is designed for children of all socioeconomic groups, although it has been set up by the Center for Urban Education (CUE) as a pilot program with children of inner city or ghetto backgrounds. It can be administered by a parent or parent surrogate in the home or in a home setting, or by a specially trained language counselor. The LARC program as it now exists has been piloted for a one-year period in an inner city housing project of a medium-sized eastern city. CUE proposes to generate and test in a field setting all materials of instruction in both the home curriculum and the training course used in the program, along with various measures of language acquisition skills that can be achieved by children at different stages of development. Results achieved so far indicate that the LARC program is valuable as a solution to pressing educational problems now being addressed by schools and communities. (Author/RB)

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THE LARC PROGRAM

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INTRODUCTORY STATEMENT

The purpose of the LARC (Language Acquisition Resource Center) project is to make operational a home-based program which will facilitate the development of communication skills for young children, ages 6 months to 5 years. The program is designed for children of all socio-economic groups, although it has been set up by CUE as a pilot program with children of inner city or ghetto backgrounds.

The program features an innovative curriculum for the use of these children, along with two alternative modes of presentation of the program; that is, it can be administered by a parent or parent surrogate, in the home or in a home setting, or by a specially trained Language Counsellor, a person who fills a newly conceived service role important in the on-location presentation of educational activities in a community setting.

The Center for Urban Education proposes to generate and test in a field setting all Materials of Instruction which comprise both the Home Curriculum, and the Training Course to be used by the Language Counsellor, along with various Measures of Language Acquisition Skills that can be achieved by the children at various stages of their development. These materials would thus constitute the main body of the project's effort, and indeed, its raison d'etre. The Center would create, field test, evaluate, and revise where necessary all materials produced during the course of the project. Also it would provide full descriptive accounts of the process of

installing the project, and attempt an evaluation of its success over a period of time or the scene of action.

The LARC program as it now exists has been piloted for a one-year period in an inner city housing project of a medium sized Eastern city. Chosen as the candidate for the first stages of the Language Counsellor Training was a young female from the neighborhood who worked with a group of mothers and children under supervision of CUE personnel. Together they refined the beginnings of the Training Course and administered the home curriculum for language acquisition for the first group of children, ages 6 months to 2 years.

As a result of the success of the program, even in its preliminary form, the effort is now being partially supported by the Model Cities Agency of the city involved. But their funding, while indicative of their high interest and approval of the project's potential, is both limited and short term, extending the program only a few months beyond the pilot stage financed by the Center.

Results so far achieved appear to indicate that, on both a theoretical and a practical basis , the LARC program has value, offering as it does an innovative solution to a pressing educational problem now being addressed by communities as well as by schools, and as a viable means of intervention that can be institutionalized by a large or small community structure without costly delay or

prodigious effort. This has happened because LARC program applies significant research findings in an creative but practical and realistic way.

The following pages offer a complete OVERVIEW of the LARC program, and present a full RATIONALE, which explains its theoretical-practical basis and approach. Also included is a DESCRIPTION of the program, which is divided into the SUBSTANCE of the home curriculum, and the TRAINING of the Language Counsellor. Following that, is a section on the RESEARCH AND EVALUATION that will be carried on with the program, and finally a suggested TIMETABLE AND BUDGET necessary for the development of the various aspects of the program. A full BIBLIOGRAPHY is of course also appended.

I. OVERVIEW

A. What is LARC?

LARC is a home-based program designed to facilitate the development of communications skills for young children from infancy through six years. The program consists of parent- child language interaction activities which coordinate with and give practice to the child's natural course of language learning. These activities may be used wherever parents and children (or parent surrogates and children) meet together: in community center or Head Start programs, and in baby sitting arrangements; they may also serve as prototypes for language curricula in these places.

The program makes no assumption of cultural deficit for any child or group of children. It is not constructed as a remedial tool. The program posits that in any environment, specific activities will enhance:

a. The child's comprehension and production of a variety of oral speech events;

b. the number of situations in which speech occurs;

c. The child's power of choice, in the selection of verbal or motoric behavior and/or styles of language, within a given situation.

Two alternative forms of presentation have been built into the project:

a. package of booklets, cassettes, and resource material, for parents wishing to proceed with minimal help of professional consultants;

b. similar materials in a package to be used by a specially trained language counsellor, who works with parents.

Three specific products result from the program:

a. The curriculum for parents and young children;

b. the training course for the language counsellor who administers the curriculum, and

c. measures of language acquisition on which the curriculum is based.

B. How LARC differs from other programs.

This program differs from other contemporary offerings in the field of early childhood language development through its triple-pronged approach -- work in the home, work on the delimited area of language functioning, and work with children from early infancy to five years of age.

1. Language Programs for Infants. Although Schaefer, Gray and Gordon (48, 28, 27) have utilized a home visitor with very

young children, their concentration has been on the development of cognitive skills within a Piagetian framework, rather than on the facilitation of language acquisition per se. It was anticipated that mastery of a particular cognitive operation would spread to the language area. This assumption has proven untenable. Moreover, originally none of the projects under their direction stressed teaching the mother to work with her own children. Graduate students or paraprofessionals instructed the child directly without regard for the presence of family members. Gordon has now changed his procedures to work with parents; however, his primary interest remains the development of specific thought processes rather than the acquisition of language.

Gray's associates have put together a booklet demonstrating how children form various socio-economic strata learn from mothers in the home (49). Models of successful and unsuccessful language are presented for study and use, along with floor plans of the homes where the inter-action takes place. There is a clear bias against the teaching strategy of lower class homes. Moreover, the guiding questions and exercises included after each model, do not allow for transferring the successful styles of one site into another, less endowed environment.

While Schaefer's assistants suited what they did with a child to his mood and situation, there was no rigorous structure or order to their procedures. In contrast, Gordon and Gray have

depended on adaptations of the Skinnerian paradigm for programmed instruction; the child moves at his own pace through a set of carefully sequenced activities.

In Skinnerian approach, the young student can modulate only the speed with which he proceeds through materials. He cannot choose among alternative techniques of mastery or the contexts in which they occur. Primarily the child responds to someone else's input and his substantive contribution to the program is minimal. He remains, to some extent, a passive being, manipulated by educators, rather than an active agent.

In contrast, the children participating in the LARC Program determine the substance of the program through their own language production. Intervention is based on what occurs, rather than what should or might occur. Continuing observation of each child's language output, including his stage of development as well as the words and structures he uses within a stage, provides a child-initiated "natural history," and is the basis for the construction of the program.

The LARC participant also contributes methodologically to the program. In the Gray and Gordon materials, the child lacks freedom to select among functional methods of response.

LARC uses as teaching technique a combination of behavioral modelling as illustrated by Bandura (1), and operant conditioning.

An example of language behavior, which comprises the goal of the planned intervention, is presented to the child for direct or indirect imitation and/or expansion. If the youngster responds as desired, he is rewarded. If he does not respond, the conduct is modelled in another manner.

Thus, for every learning task, a variety of teaching strategies and reactions are considered as equally acceptable. Reward is not only extrinsic, as a child receives praise for his appropriate speech, but intrinsic as well since the child chooses to respond to the modelling adult.

2. Language Programs for Pre-Schoolers. Of the curricula particularly concerned with language development for older children, the best known are two: those of Bereiter and Engelmann (4) and of the Institute of Developmental Studies under the directorship of Martin Deutsch (22). Both deal with children above three years of age in a school setting. The assumptions on which language activities for these programs are based are largely drawn from the views of Basil Bernstein (3). Bernstein believes different codes of speech exist for varying socio-economic strata of a population. In assigning the "restricted" or "public" code to the economically disadvantaged, he describes their language as less efficient and less varied vehicle of communication than that of more affluent persons. Using such a premise for an instructional program

virtually guarantees that children from impoverished homes, especially those who speak a non-standard dialect, will be regarded as having some kind of linguistic deficiency. Indeed, the notion of "cumulative deficit" for such youngsters, in cognitive and linguistic spheres, has become synonymous with Deutsch's work.

Recent linguistic studies have disproved this premise. Findings of Labov, Stewart, Baratz, Dillard, etc. (38, 52, 2, 23) demonstrates that non-standard English, as spoken by Negro children, contains structures as complex as those of standard English spoken by white children. They show repeatedly that dialect is not an incorrect variation of a standard tongue, but a language in its own right with corresponding rules of syntax. This means that Deutsch and Bereiter and Engelmann are in error when correcting black children's usage as faulty standard grammar. More importantly, it deprives teachers of a powerful pedagogical tool: in being told that what they say is "wrong", children cannot use a familiar speech pattern as a memory device to remember an equivalent unfamiliar one. In addition, the young child is presented with a value conflict in regard to the fact that his oral language style, which receives general acceptance by his peers, is deprecated in the schoolroom. For teachers the "cumulative deficit" phenomenon perpetuates the idea that "poor kids who speak differently from themselves are dumb kids."

This notion of cumulative deficit is not without subtlety. Perhaps it may apply more to advantaged teachers than to students from low income homes. Smilansky has reported that disadvantaged Israeli children show less socio-dramatic play than their advantaged classmates as evidenced through fairly complex verbal interchange (50). A study by LARC staff has also demonstrated the effectiveness of the teacher in stopping such imaginative activity and moving to simple question and answer routine (37). Perhaps a useful strategy would be persuading children who speak dialects to believe that while their language is correct, some teachers are foreigners who have a cumulative deficit in understanding pupil speech. If children were further convinced that only they could help their teachers by translating what they wish to communicate to her kind of talk, standard forms might be more readily mastered by youngsters. It is also possible that children might have more hope of teacher success in learning than many teachers possess for students.

A more fruitful educational position is offered through the language arts materials now being developed by Baratz and Stewart. Here the child's own dialectal speech patterns are used as a foundation for learning how to read and for mastering standard English as an alternative speaking pattern. This work also reflects the viewpoint of the originators of the LARC program: it extends this viewpoint to educational activity involved in early language acquisition.

In comparing the techniques employed by Deutsch and Bereiter and Englemann, there can be no doubt of the strength of the latter who combine modelling and reinforcement in contrast to the former who emphasize reinforcement alone. But Bereiter and Engelmann use this method with content which tells the child how his language is wrong when it varies from the pattern presented in the classroom. The child is required to respond to the instruction with pre-established syntax units. Experimental evidence is necessary to determine whether their method of modelling paired to reinforcement is more potent with content that is conflict-free than with language patterns which remains compartmentalized within a child's life.

Because the LARC program begins with infancy, there will be an observationally based foundation of syntactic and semantic information for curriculum design by the time participating youngsters reach the age group of the Bereiter-Engelmann program. Moreover, as has previously been stated, the LARC activities are built upon the children's own utterences and expand the structures existing within them. When relevant, forms of standard English are introduced as parallels to or functional equivalents of present syntax.

II. RATIONALE

LARC is designed to meet three specific sources of social pressure converging on the field of education: the burgeoning

concern for the potentials of learning during early childhood, the role of home environments in shaping early experience, and the demand for new service personnel. Recognition of the need to provide learning environments for young children saw the expansion of Head Start and Day Care facilities. Unfortunately, there has been a scarcity of curriculum to use in such settings; in many instances, materials and personnel have been shunted from a kindergarten or pre-kindergarten track to work with younger children. This contrasts with the focus of much research during the last decade on the uniqueness of the learning potential of infancy and the first years of life.

Present programs also tend to ignore the positive potential of home environments for learning; it was the original premise of Head Start that the school facility must provide what the home could not. More recently, Head Start has included not only parent training workshops, but also parent participation programs. There is, too, a large scale research study on home intervention, which now utilizes parents. Much of this work, however, does not translate the discoveries concerning child learning capacity into child care practices, or the unique styles of child care (i.e. extended families) into learning situations. Moreover, at present, service personnel for such translation do not exist.

To date, this need has generally been filled through the creation of "professional tag-alongs" for particular projects,

rather than through the conceptualization of professional modes which have a less limited application. Therefore, the push toward new careers tends to be based upon existing ones, without consideration of the fact that new professional strategies, such as educational intervention in the home, demand new kinds of services. These services also entail planning of appropriate methods of training, the establishment of various kinds of careers advancement, and the development of new scales of expertise.

The LARC program also has roots in the more delimited curricular area of education. Given the current emphasis on verbal fluency and profeciency in interpreting the written word, it follows that an effective early childhood curriculum should attempt to identify and foster those skills which are relevant to such abilities. This constitutes the heart of the rationale for the construction of LARC material.

The program content of LARC focuses on language acquisition because it is the very stuff of which education is made. Learning how to read and write ultimately depends on perceiving the efficacy of communication. For most people, with the rare exception of a Helen Keller, this occurs through experience with the spoken word. The spoken word, however, cannot be considered apart from its context, the activities, places, and persons which shape its meaning. It follows that the form and function of speech events will differ according to the environments in which they occur.

This happens as a consequence of varying pressures exerted both by the situations experienced by the speaker and by the expectations of both speaker and listener. Therefore, arranging a child's environment and his social interaction with peers and adults to maximize the opportunities for language usage becomes the pivot on which the structure of the LARC program turns. From the work of J. McV. Hunt (33) is taken the premise that a child's development in a particular behavioral area is likely to proceed more quickly in a setting designed to foster such behavior than through forced, isolated practice of component activities. Therefore, the child's surroundings and his own ongoing actions are viewed as elements more vital to the teaching process than drill or direct instruction. Similarly, the Language Counselor in her contacts with parents draws on the studies of Bandura as she models, rather than explains to mothers, certain functions of language. Emphasis is consistently placed on "doing" in preference to "telling" on demonstrating more than one route to a given end in lieu of presenting to the mother a single explanation of requisite performance.

This approach differs from a Skinnerian frame of reference in that the child and mother not only pace themselves, but also they create their own individualized activities. In most programmed instruction, participants can regulate only the speed with which they proceed through materials. Thus, this curriculum

offers not only self-pacing in learning, but choices in content, context and styles of learning, while using a structured approach. Children and their parents are viewed not as passive beings manipulated by educators, but as active agents pursuing self-set goals.

It is important to note that the modelling technique utilized in LARC not only accents the extension of speech events between parents and children, but also indicates how speech patterns may accompany motoric acts. A combination of language and motor activity has been shown in the prior research of the authors to give a young child greater control of his behavior. If a child can talk as he works he is enabled to keep his own goals in sight, to change from an unsuccessful course of action to a more successful one, and to communicate what he is doing to those about him. The mediating language was also positively and significantly correlated with the achievement of the children, irrespective of race and socio-economic status (37).

That sustained modelling of language by an adult results in a tendency toward syntactic complexity and increased production of children's utterances has been shown by Cazden (19). The importance of verbal interaction between children and adults has also been described by Plumer (46), who found that boys who were high achievers in school had experienced more opportunity within their families for lengthy oral interchange than had low achieving classmates. A similar finding is also implicit in the reports of Labov (38), who

notes that high achieving Black teenage boys from economically disadvantaged homes have relatively poor contacts with peers. (One wishes that information had also been given on the boys' relationship with older persons. Perhaps the chance to talk with adults over an extended period of time carries more educational import than has been previously recognized, especially if this contact can be maintained along with friendships with those of a peer group. An assumption of this kind warrants empirical testing: it does not contradict recent investigations of peer approval as a factor in school success. It does suggest, however, that other determinants should be studied as effectors of academic attainment.)

The continuing need for adult examplars seems more closely identified with functions of speech than with other cognitive skills. Stages of operational thought, as explicated by Piaget, emerge from a solidly assimilated hierarchy of those skills less recently acquired. Language skills appear to arise in a slightly different developmental context. Each new sequence of syntactic and semantic competencies seem to be accompanied by a disorganization of some prerequisite abilities. A preponderance of such "growth errors" has been noted in manipulative studies of children's language by investigators from such different theoretical perspectives as those of Carol Chomsky (21) and Loban (39). Moreover, the age range at which mastery occurs appears wider for specific speech skills than for certain conceptual strategies. The LARC

program proposes to elucidate the role of adult language models during periods of consolidation and change in language usage.

As has been noted above, the development of language seems to proceed at a different rate than the development of other cognitive skills. This could account for Gordon's failure to find that gains produced by training young children in cognitive operations transferred to speech production. His study raises related questions: will intervention directed toward expansion of particular kinds and uses of language achieve its aims and, if so, do increments achieved spread to other cognitive areas? In other words, does attention to verbalization positively influence cognitive growth, although a focus on cognition did not enrich the flow of speech?

In any case, the work of Gordon and Schaefer, who had home visitors "teach" youngsters of one to three years for an hour daily, demonstrates that for any complex learning goal, the younger child is the less adequate in the attention given to the child alone in the absence of familial support. Not only is an adult model helpful in early learning, but a child's mother may be significantly better than paraprofessionals or professionals in achieving intellectual increments with the very young, as shown by Karnes' (36) ongoing project. If the mother is an effective agent for instruction in macro-mental skills, it seems likely she will perform equally well in coping with the delimited speech activity

of LARC activities. Maternal teaching ability, with and without the aid of the language counselor, will be one of the researchable aspects of the program. Much attention will be focused on mothers' teaching styles. Here are relevant the studies of Hess and Shipman (31), who discovered that mothers instructing pre-school offspring on experimental tasks experienced more successful outcomes if they used an illustrative, one-step-at-a-time technique which allowed for feedback to the child rather than an overextended or brief explanation. Also, the authers have observed a continuum of language behavior in mother's talk with children which seems correlated with some aspects of language acquisition. At one extreme is motorically directed speech, in which a comment is best answered by a physical response. For example, in the data compiled by these researchers a mother says to a year-old infant, "Put on your sock" or "Fetch a wash rag" (37,44). (A predominance of this kind of speech has been found in Black families with low socio-economic status). At the opposite end of the continuum is language-oriented speech. In this kind of interaction, the mother's comments either describe ongoing action: "Now I'm washing your face" or request an oral response: "What is this?" pointing to a child's notse. (A predominance of language-oriented speech appeared in a sample of middle-class homes, with no apparent relation to ethnic membership). In summary it could be said that in a similar situation the mother who uses motoric-directed speech most often

asks her child "to do " things, while the mother relying on language-oriented speech asks her child "to say" things. The second pattern looks as if it might be related to school success, which also is reliant on verbal output. Such a probability, as well as an elaboration of maternal styles of speech, awaits further study.

Nevertheless, the possibility that a given situation can entail more than one behavior, highlights the concept of functionally equivalent modes of action. This idea of the "functional equivalent" has been a cornerstone for the construction of the LARC language activities. The procedure includes the pairing of speech and action, as well as the utilization of alternative modes of oral expression for a single situation. An introductory set of materials acquaints mothers with communicative options such as gross motor behavior, gesture, or kinds of speech events -- that may exist at a given moment. Mothers are next asked to consider the effects of each alternative in a specific context. Later, the mothers become familiar with functionally equivalent verbal techniques for achieving a given objective. For example, an item might be obtained through use of a question, an imperative or conditional statement. Emphasis is placed on modelling these varying linguistic structures to increase the child's understanding and production of forms.

The notion of functional equivalents assumes special significance

for the speaker of non-standard English. Dialects are viewed as different rather than deficit models of communication. Since a dialect is regarded as a rule-governed language like any other, children are not corrected for their use of it. Instead, both mothers and children are encouraged to explore correspondences of syntax and meaning in standard and non-standard speech. It is further maintained, however, that the close approximation of some dialects to standard English can make the latter harder to learn as a second language -- if the former are constantly disparged -- because of memory interference in trying to keep separate the related aspects of grammar. Aside from the lack of logic in treating a system as a non-system, and the unfavorable emotional results of viewing one's manner of speaking as faulty, it is felt that when a child receives continued censure for his mode of talk he is less likely to perceive the similarities between the favored and disfavored language which could, in altered circumstances, facilitate learning.

Nevertheless, it is a well-known fact that the child who does not speak standard English experiences a disadvantage in the classroom. Keeping this in mind, as well as the current emphasis on reading skill, the LARC program may help to determine how emphasis on the co-existence of standard and non-standard forms affects later school performance. It is hypothesized that the

child who would ordinarily speak only dialect, but who has participated in LARC activities from the earliest stages of language acquisition, will enter first grade with a kind of "functional bilingualism." An approach of this sort seems particularly warranted in view of the problems met by Baratz and Stewart, in distributing their dialectical readers. They found that both students and community groups have objected that dialect does not constitute sanctioned school language. As noted above, such rejection of dialect presents a barrier to academic success, since it does not permit a language already mastered to become the basis for further mastery of similar but unfamiliar forms. Therefore, the use of a curriculum which allows mother and child together to gain expertise in standard English, without devaluing the use of dialect, may further the acceptance of dialect itself as a teaching tool. Moreover, such a curriculum can ultimately provide a great continuity between the speaking environments of home and school.

A further rationale for the LARC program comes directly from current suppositions about the nature of language acquisition, and from ongoing projects built around such suppositions. Here one finds two parallel streams of endeavor. The first of these, interaction analysis, has developed uniquely in educational channels. Stemming from the early work of Bales (3) and Homans (32) in making explicit the social process of small groups, as well as from the

philosophy of language as exemplified by Austin, interaction analysis defines and categorizes attributes of oral communication in the classroom. The ultimate objective of such inquiry is that the teacher may become able to select an instructional style best suited to mastery of a topic by a particular child. Such observations could also be extended into the home, relating, as Plumer does, familial styles of interaction to school attainment. The LARC program begins this task, with its conviction that social processes identified during program development may have direct relevance for construction of early childhood curricula in school and community settings.

The naturalistic study of a child's language in his own surroundings has increasingly become a subject for concern to the linguist.* Historically, his interest has been a technical one in the syntax and semantics of speech, rather than in the social characteristics in which speech is embedded. In the last ten years, naturalistic and experimental studies of language acquisition have been given increasing depth and structure through the theory of generative grammar, which provides more fully than other frames of reference for the creative dimension in the genesis and development of speech. As a hypothetical system, it is directly concerned with the ways in which a child builds words into sentences that no one in his environment has uttered. Although research has heretofore been limited to exceedingly small samples of

*Those studies which have been reviewed and incorporated into the program are noted in Section III, Substance.

white middle-class children, linguistis are more frequently turning to the context of the speech event -- the situation, activity and persons which constitute the speaking field -- to lend added significance to the variables studied.

Hopefully the LARC curriculum will offer many points of juncture between the fields of interaction analysis and applied psycho-linguistics, in its exploration of the social concomitants of early communication and of the structure of communicative acts.

As can be seen from the preceding comments, the outlook of the program is a pragmatic one. The intent of the developers is to make research usable now. The products of the program -- its curriculum and training for a new career -- are designed to translate the most recent findings of relevant inquiry into a series of activities that will constitute the duties of a newly created professional role -- that of the language counsellor. They are also intended to use the vision of service professional, who will function where the action is, to generate new questions for research and new ideas for educational development.

III. DESCRIPTION OF PROGRAM

A. Parameters.

PRESENT SCOPE	INTENDED SCOPE
Age	
9 months - 2 years	3 years - 5 years
Socio-economic Status	
Lower	All
Setting	
Home	Home Nursery School Parent programs
Personnel	
Language Counsellor	Language Counsellor

B. Substance

1. Activities for Mothers and Children

Optimally, the LARC program should begin with all children at age 6 months, to allow a three month observation period of mother-child interaction and the child's own physical and social development, before day-to-day comprehension of language begins. Reference for such activity is found in the work of Tomas, Chess, and Birch (53). The program may begin, however, with the child at any age within the scope of the project, through an initial set of activities.

These activities contain units on the following topics:

1. Data Collection on family experience
2. Child characteristics
3. Importance of language
4. Language interaction
5. Motor-directed and verbal directed language
6. Comprehension and production
7. Decoding I the mother
8. II the child
9. Encoding I the mother
10. II the child
11. Modelling I direct imitation
12. II expansion and extension
13. III indirect modelling

The content of the activities provides basic information the mother will need throughout the program: data on the family, child, and family-child interaction, plus specific information about language usage. This direct immersion in substance has been shown, in the experience of the authors, to be the most effective means of increasing the mother's awareness of her potential educative influence on her child: her approach changes from that of an unreflected response to the child's needs, into one in which she views herself as an active agent in enlarging his linguistic domain. The most salient fact here is that LARC activities are <u>not</u> designed, for the most part, to change a mother's style of interaction or the language she uses with her child; as most children acquire language, it is assumed that most mothers are adequate conveyers of the transactions necessary to this process. LARC activities are designed to complement a mother's own style and to increase the power and

substance of the way in which she interacts with the child.

The activities have been constructed utilizing two general techniques which the mother may want to incorporate: a pattern of instruction/observation following a learning model, and the technique of modelling as a teaching device. No direct instruction in these techniques is given. Rather, the Language Counsellor uses them in her demonstration with the mother and with the child, so the process becomes a natural one.

The learning model consists of six steps:

1. Aims
2. Description of skills desired
3. Diagnosis of the child's status relative to the activity
4. Procedures for instruction/participant observation
5. Evaluation
6. Review of previous activity

Aims and outcomes (skills) are stated clearly for the user. Diagnosis is based on easy-to-administer techniques, followed by instruction or more experimental participant observation. Participant observation, which allows the initiator practice at both observation of/and interaction with the child, is viewed as necessary for any user of the program; it provided opportunity for noting the child's sppech production, as well as the effect of one's own talk upon the child. Evaluative measures are built into the activity to note the child's progress. After completion of a given unit, a relevant aspect of a previous activity is re-introduced to provide continuous building of information and a sequential perspective for the program.

Modelling (as described above in OVERVIEW and RATIONALE) is the basic instructional technique. Didactic methods of instruction are replaced by a "partnership" approach, where desired behavior is enacted by one participant and emulated by the other.

These techniques remain operative throughout the program, the remainder of which is divided into activities for mothers and children within certain age indices. Definitive age-based categories do not exist. Although further research may better correlate age with stages in language acquisition and development, the stage will always be the best indicator of growth. Age-based categories are used here only for ease of explanation, and as a preliminary guide to the observation of stages. The basis for the description of these categories derives from several sources, as well as from the experience of the authors: Lenneberg (40), Brown (10,15), Bloom (8), Bullowa (16), Soskin and John (51), Braine (9), Miller and Ervin (42,24,26), Berko (4,6), and Cazden (17,19).

ACTIVITIES FOR MOTHERS

I.

1. Positive reinforcement of babbling.
2. Selection of phonemes for repetition.
3. Use and repetition of labels, relational terms, actions.
4. Use of descriptive language attached to child's body, movement, and daily activities.
5. Description by mother of what she is ebbing in relation to the child.

CHILD'S STAGE OF DEVELOPMENT

I. At nine months to fifteen months.

Pre-verbal, vocalic.

Movement toward social responsiveness to language and first word.

II.

1. Repetition of child's labels.
2. Introduction of new labels.
3. Repetition of child's relational terms
4. Introduction of new relational terms
5. Expansion of one-word utterances into two-words and sentences.

II. At fifteen months to twenty months.

One word utterances.

Child's first utterances are usually classed as having the semantic intent of expressing the existence of objects or people in the environment (labelling), which includes words expressing the

a. recurrence, i.e. more

ACTIVITIES FOR MOTHERS

II. Continued

6. Continuation of descriptive language (steps 4 and 5 in I. on page 25 in relation to child and mother.

CHILD'S STAGE OF DEVELOPMENT

II. Continued

b. negation of things i.e. all gone, no more.

Lois Bloom has classified these early utterances as:

A. lexical labels -- words which can stand alone, i.e. baby, chair, milk, mommy

B. inherently relational words, notional terms i.e. up, down, more.

III.

1. Repetition and linguistic expansion of topic-comment utterances into syntactically relational utterances and sentences.
2. Expansion of situations in which topic-comment utterances are used.
3. Observation of relational utterances to see which the child is using.
4. Reinforcement of relational constructions; expansion to sentences.

III. At twenty months to twenty-four months.

A. Beginning of the two-word utterance stage

1. Pre-syntatic: topic-comment statements; expression of a label and something related to it, with a pause between, i.e. sock/chair.
2. Syntactic

a. pivot grammars -- small class of "functional" words appearing often and always in the same position and paired appropriately to a large class of lexical or labels, i.e. up chair, up box.

ACTIVITIES FOR MOTHERS

III. Continued

5. Introduction of new relational utterances.

CHILD'S STAGE OF DEVELOPMENT

III. Continued

2. b. labels and label construction (noun and nouns). Not all children develop pivot grammars; some move more directly into juxtaposing two lexical words and some move into this state after pivot grammars. Brown and Lois Bloom, using the data of the child's actual utterance (the speech event) plus the context (where, what, with whom the child was doing some of the utterance, have listed the possible meanings of the child's constructions at this stage: (some of which occur in their data and some of which do not.

1. Conjunctive - two objects of the environment named, or two aspects of the same object, chair table, chair leg.
2. Attributive - descriptive noun and other nouns i.e. party hat.
3. Genitive - possessive noun and other nouns, mommy sock.

CHILD'S STAGE OF DEVELOPMENT

III. Continued

4. Subject-object -noun corresponding to subject of an adult sentence and noun referring to place, i.e. sweater chair.

5. Subject-object -noun corresponding to subject of an adult sentence and noun corresponding to object of an adult sentence, i.e. adam checker.

B. Other two word constructions:

1. Attributive (Adjective and anoun)i.e. big train.

2. Locative (Verb, Noun), i.e. walk street.

3. Agent action (Noun and Verb), i.e. Adam put.

4. Action-Object (Verb and Noun), i.e. put sock.

ACTIVITIES FOR MOTHERS

IV.

Many early language development studies (Susan Ervin, Jean Berko, Brown & Fraser, and Cazden, among others) have attempted to describe how a child learns these syntactic variation and how their use may be tested. These materials will be abstracted for use in observation and instruction. The structure of the activities will follow the structure of III on page 27 , expansion, observation, introduction, expansion. And, as above, it should include situational, as well as linguistic expansion.

1. Observation of functions of speech in a child's language usage.
2. Reinforcement of existing functions.
3. Expansion to other functions not used.
4. Observation of structure within a given function.

CHILD'S STAGE OF DEVELOPMENT

IV. At twenty-four months to thirty months.

Two word utterance stage complete; beginning of full sentences, more complete syntactic utterances; functions of speech.

a. Continuation and expansion of use of relational utterances.

b. Use of more complex syntactic structures, i.e.

1. passives and modals, i.e. I went, I would go.
2. plural and action inflections, i.e. throws, throwing.
3. subject-verb agreement, i.e. I go, he goes.

Functions of Speech

1. Comments - the child names or points out objects, persons, or events in the environment (either to a receiver or to himself) whom the referent is manifest; often accompanies ongoing behavior or announces subsequent behavior.

a. performative - acting on a referent.

ACTIVITIES FOR MOTHERS

5. Reinforcement of present structures.

6. Introduction of new structures within functions.

7. Introduction of situations in which new functions may be used.

8. Introduction of new people who may stimulate new functions.

CHILD'S STAGE OF DEVELOPMENT

Functions of Speech (Continued)

b. reportative - designating an attribute of the referent

2. Reports - the child gives information about subjective states or other non-visible referent.

3. Regulations - the child attempts to regulate aspects of the environment and activities through the attention and subsequent behavior of another person;

4. Questions - the child attempts to get information or confirmations through another person;

5. Rituals - the child uses either stereotype utterances (Hi! Thank you) of the broader culture, or immediate environment, or speech routines used in the community;

6. Expressives - the child uses expletives or statements to express affect toward a situation or personal state;

7. Language practice - the child selects out certain linguistic forms of words, or phonemes, which he will practice.

ACTIVITIES FOR MOTHERS

V.

1. Observation of affective wxpressions
   a. which used
   b. with whom
2. Observation of structure of utterances
3. Reinforcement of affective expressions used
4. Expansion of situations in which affect can be expressed:
   a. activities
   b. places
   c. people

CHILD'S STAGE OF DEVELOPMENT

V. At thirty months to thirty-six months.

Continuation of more complete syntactic utterances

Continuation of functions of speech

At this stage, it is possible to isolate certain affective dimensions of the child's speech, in relation to himself and the people to whom he talks, which may have a relation to his preferred structures and functions.

Types of Expression

1. Wants, wishes, self praise
2. Mutually complimentary statements
3. Derrogation, reproof, rebuffs (which imply the speakers superiority).
4. Self-criticism, abnegation
5. Apology, forms of giving, praise
6. Compliments, permission
7. Mutually unfavorable statements
8. Accusations, reproof
9. Imaginative
10. Gaminy

Activities for mothers and children, ages 3-5.

The activities for mothers and children between the ages 3-5, will be divided into year categories. The dearth of research in this area necesitates the preliminary completion of the first part of this program, so that activities sequentially arranged within one theoretical framework will be continuous, and will avoid the derivativeness of present programs for this age group. Guidelines will be taken from the recent work of Carol Chompsky,, Davenport, Plumer, William Labov, and Claudia Mitchell. Work on both the grammatical and situational aspects of the children's speech will continue with the attempt made to use situations (people, places, activities) as the foundation of expansion within any given linguistic stage. For example, the differential usage of egocentric vs. social language across SES groups as noted by the authors, may be a key to stimulating varied functions of speech and their concomitant structures (36, 44).

The activities for this group will follow the same format as those for younger children with the slight variation of more individualization. At this state, more elaborate material such as books to read to children, games, etc, may be introduced into activities. And the overall aim will be to start to develop specific reading readiness skills.

2. Language Counsellor Training Program and Curriculum (see section IV,Training)
3. Measure of Language Acquisition (see section V, Research and Evaluation)

C. FORMAT

The format for the materials described under SUBSTANCE, TRAINING AND RESEARCH AND EVALUATION is as follows:

A. Activities for mothers and children

1. a set of cards, each card outlining an activity, suitable for filing, in a looseleaf notebook
2. "Hand-out" folders for mothers, graphically representing some of the theoretical information on language development

(Note: When materials #1 and 21 are used in conjunction with the language counsellor program, they are included in the Activity Book described below)

3. Printed instructions of a general nature on matters of procedure
4. Cassette tapes

B. Language Counsellor Training

1. Training book, a looseleaf notebook containing:
    a. articles covering relevant information from the academic discipline
    b. Exercises
    c. Selected bibliography and references
2. Activity book, a looseleaf notebook containing:
    a. Observational activities
    b. Activities for mothers and children
    c. Resource materials on theoretical information on language development
    d. "Hand-outs" for mothers on language development

C. Measure & Language Acquisition

Two main factors influence the format of the language acquisition measure: the age of the population and differences in the forms of English used in their environment. Short story booklets, written on heavy paper and contained in a looseleaf binder, serve as the visual stimulus for language response. Directions are given with a toy telephone (connected to a tape recorder) over which the child can listen to versions pre-recorded in the appropriate language. He will respond into the telephone, and his answers will be recorded on tape for his own and teacher use.

D. Materials

Following is a preliminary list of materials, exclusive of those described in Format (above) which enhance the program. More materials, for specified age groups, will be added as development continues.

A. Already Available Materials

Toys for the language counsellor to bring to homes, which may facilitate her work beyond materials already present in homes. Ex., small mirrors, dolls with removable clothing, trains and bridges, hand puppets.

B. Materials to be Specially Constructed

1. Printed or hand written labels for items, which can be left in the home by the counsellor, or made by the mothers (guidelines to be provided by the project)

2. Story books for children, utilizing words and constructions in their speech

3. Reading readiness materials (if those already available prove inappropriate)

4. Language games which can be played between parent and child/child and child. (if those already available are inappropriate to the project's purposes)

5. Audio-visual materials- a series of short 8mm movies or video tapes (8-10 minutes) dramatically depicting instances of language interaction, such as speech occurring around routines of child care, eating, bathing, dressing, etc.

IV. TRAINING FOR THE LANGUAGE COUNSELLOR

Capabilities of Language Counsellor

The primary task of the Language Counsellor is to facilitate the development of communication skills through planned activity with young children and parents in the home. This requires careful observation of parent-child interaction and the compiling of research data to gain a more complete understanding of the norms and functions of speech at different ages. She will also act as a liaison between home, school and community agency. In this manner her activities model for the parents with whom she works patterns of effective social action and responsibility which affect the uses of language. In addition, she will have to translate for her clients the meaningful educational implications of the research and developmental concepts which form the basis of her professional techniques.

Scope and Place of Training

The position of Language Counsellor is presently considered as a career consisting of three scholastic rungs which permit professional advancement. These are: a two-year training program on location with the project, a two-year (or more) continuation of work within a college structure, working toward an undergraduate degree, and a graduate program leading to a Master's degree. Although educational planning has now reached the Master's level, there is no reason why it should not be extended to doctoral studies, should the demand for services grow with passing time.

Initial training for the Language Counsellor would comprise a two year period with the project supervisors following high school graduation or completion of the equivalency program. To date the Language Counsellor has been taken exclusively from neighborhoods with extremely low socio-economic status. While this background is not viewed as essential to the success of the program, a raison d'etre of its existence was to equip the economically disadvantaged person with a new career framework for dispensing services deemed valuable by a large societal group, as well as to provide the motivation and necessary preliminary skills for further academic work. Training could also be sponsored by a number of places, such as a four year college or university, a junior college, a Model Cities or a Concentrated Employment Program. Upon completion of such a college-sponsored course, it would be expected that the Language Counsellor would gain working experience for at least a year before returning for another two

years of preparation.

After the two-year period of working with Center personnel, the Language Counsellor trainee would be encouraged to enter a college or university, to continue work towards a Baccalaureate degree. As an additional function of the LARC program, the project developers would initiate a relationship with a nearby university or college with a view towards achieving partial or total accreditation of the LARC training program. It is hoped that the Language Counsellor might be granted at least one or perhaps two years of college credit for her work with the project. (In fact, this has been achieved already during the pilot phase of the project as described above, with much interest displayed on the part of a neighboring city university.)

Whatever the milieu in which she completes her third and fourth year of education, it would be expected that she would then receive a baccalaureate degree, recognized by an accredited institution allowing pursuant graduate training in fields other than her own. After her second stint of schooling, the Language Counsellor would take a more active role in the construction and expansion of project materials. She could also provide some supervision for junior colleagues. It is also anticipated that she could earn a Master's degree in her own field which would equip her with special research and teaching skills to give her senior status professional significance.

Characteristics of the Two-Year Training Program

The education of the Language Counsellor will comprise a blend of

classroom and field experience. Regardless of the sponsoring agency, the locus of preparation for the Language Counsellor should be within the community where she will perform her work. Past experience of the authors has proved the effectiveness of an apartment similar to those in which prospective clients live, as a training classroom. In such surroundings, the presence of trainees' own families or neighboring mothers and children provide a constant source for observation of child-care practices, and illustrations of how environments influence day-to-day activities. If trainees are from a low-SES background and have not had prior working experience of an extended nature, time requirements for training should gradually build up from a few hours in the afternoon to an eight hour day.

Goals for the first year of instruction include the adoption of a code of parofessionalism and familiarity with the professional tools of co-workers, teachers, social workers, public health nurses.

The initial focus of the training period is on the biographical data of trainees, emphasizing the importance of language as a tool for everyday living. It is an a priori assumption of the program that awareness of the possibilities which language opens in one's own existence constitutes a prerequisite for demonstrating the potential effectiveness of communication with others. During this period, the power of talk would be shown through role-play, modelling, and participation in routine activities requiring speech (purchasing, explaining, proposing topics at meetings, expressing feelings to intimates, etc.). Group solidarity would be built through mutual decision making and design of a code of professional behavior.

Teaching techniques, making some use of "sensitivity training," would rely most heavily on the patterning of desired action as presented by Bandura and Patterson.

Observation of self is continually contrasted with observation of others. Daily visits are made to homes, schools, day-care and health centers. The emphasis, however, remains the same -- remarking the influence of language on other aspects of behavior. Contrasts are continually made between the characteristics and functions of professional and everyday talk. Moreover, the prospective language counsellor is encouraged to note the effects of these varied patterns of speech on children receiving professional services.

Following the introduction to both the shape and substance of the program, the remainder of the first quarter of preparation is directed toward sketching the relevant contributions of philosophy and the social sciences to the development of language and the specific tasks which the language counsellor will be expected to perform. If a trainee requires special help in the skills of reading comprehension or written composition, this is the period when she receives intensive aid.

Assigned readings and discussions are intended to introduce students to the disciplines and fill in gaps left by prior schooling. However, they are not used as the basis for the accumulation of a vast number of facts from each area studies. Rather, the content acts are a bridge from the traditional pedagogy of high school to the academic participation expected of college students. The language counsellor would become

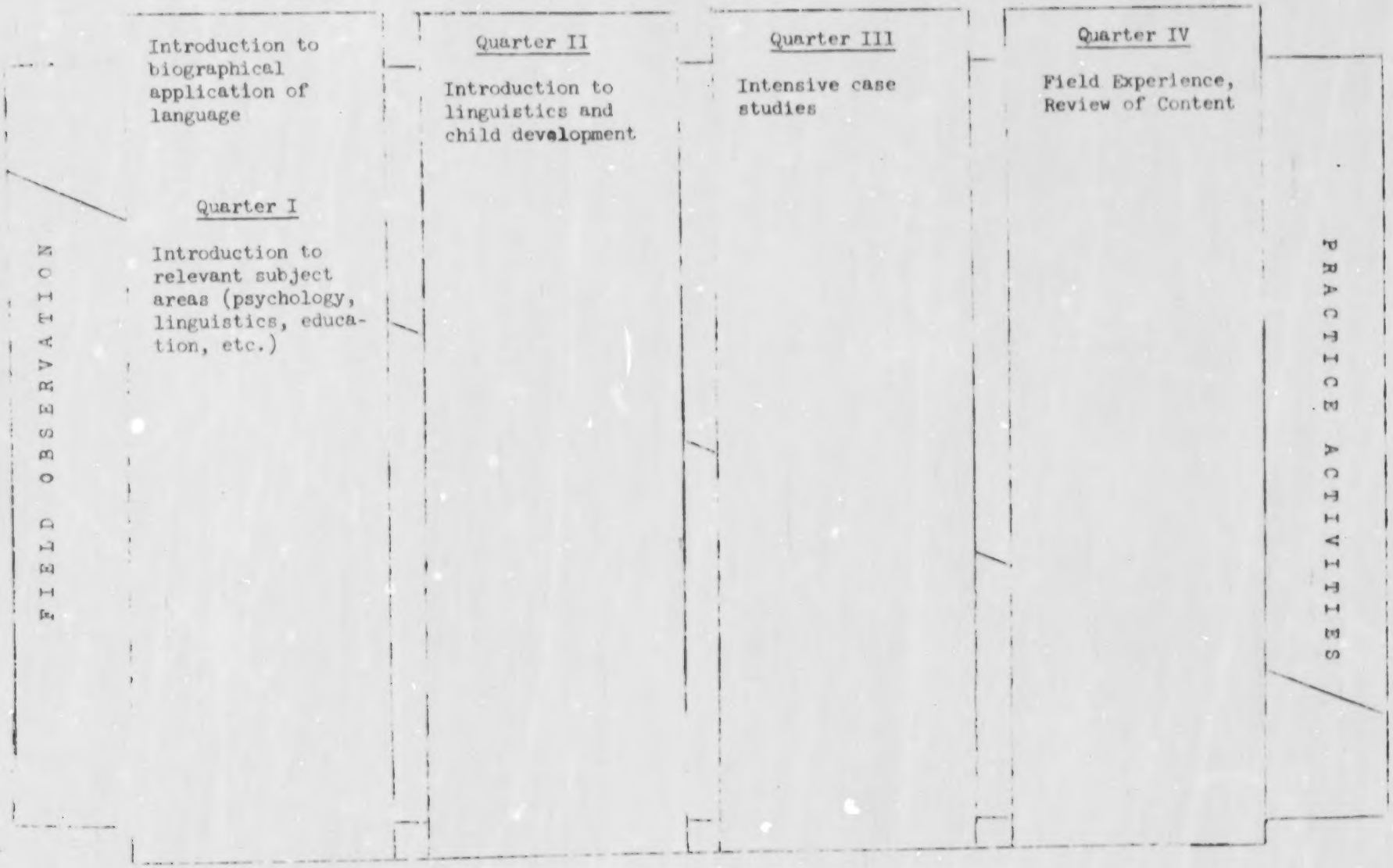
acquainted with child development and learning from psychology, concepts of demography, stratification, status and role from sociology, aspects of kinship and culture from anthropology, etc. The philosophical context would comprise the nature of assumptions (a priori, ad hoc, a posterion), the contrast between inductive and deductive reasoning, as well as between rationalism and empiricism, and the elementary treatment of social ethics.

During the second quarter of preparation, concentration centers more on content. Trainees would be expected to master certain information from the fields of applied linguistics, child development and those aspects of learning theory such as (operant conditioning and modelling) which underlie the working materials of the Language Counsellor. During the third quarter she is also expected to study extensively the language development of three children between 15 and 36 months. A journalistic record and summary of her observations will be required. Data from dialectology and an overview of research methodology appear as new curricular contributions during the third training quarter, as linguistics also is given a more intensive treatment. The last portion of training time reviews the content of the course and stresses field trial of activities which after graduation will constitute the daily schedule of the Language Counsellor.

When the Language Counsellor returns to school for completion of an undergraduate degree it should be to life on campus. Liberal arts courses, intended for a broad spectrum of students, should widen her educational

perspective. However, there should be a parallel stream of further study in child development, psychological diagnosis, linguistics and experimental design. Some acquaintance with elementary education would also seem a pertinent prerequisite. At the Master's level, neuroanatomy and the biology of speech are added to widen the curricular spirals.

Two Year Training Course for Language Counsellors:
Relation Between Subject Areas and Practicum



Training Materials

Educational matter prepared for the two year training of the Language Counsellor includes the following:

1. Content Resource Book, A group of articles presented in looseleaf form which give key concepts and vocabulary from the disciplines most closely connected with the student's eventual professional concern. Articles are from fifteen to twenty pages in length and are followed by exercises for discussion or write-ups, as well as by a brief annotated bibliography. The style and form of the articles is as important as the content. Expository composition is avoided whenever possible. Instead, dramatic examples of work situations are presented showing how central topics illuminate the action described. At present articles have been drawn from psychology, sociology, anthropology, elementary education, research methodology, library reference services, public health, pediatrics, psychiatry, and speech pathology. Other subject areas will be included as further field testing refines those theoretical approaches most helpful in practice.

The printed form of the articles and their arrangement in the book will complement the flow of content; articles will be printed in large type designed to allow space for annotations and put together in such a manner that attention to certain information is consistently reinforced by the same patterns (i.e. underlining and appositioning of key words and concepts, identation and spacing of re-introduced information.)

2. Observation and Activity Day Book, Here again a looseleaf organization is used to present paired activities -- one requiring observation and the other necessitating interaction -- which will form the core on the Language Counsellor's performance as she attains career competency. For example, she is asked to note in detail and describe the behavioral characteristics of young children before being assigned to complete with a mother a rating of the behavior she has been watching. Each of the activities for children, as explained in the section on substance, has an accompanying observational component. The format for observational and interactive activity is identical. Stressing this order makes both the content and structure of activities into teaching vehicles. Thus, the student learns simultaneously what she is to model for parents and children, as well as the modelling technique itself. It is hoped that continuing confrontation with this paradigm will enable the Language Counsellor, even in her apprenticeship to extend the number and kind of activities she uses with her client.

In addition to the materials incorporated into the training package, it is expected that every training site would make use of local resources. Visiting lecturers are seen as especially important, so that the Language Counsellor becomes directly acquainted with representative professionals from

various fields. Moreover, it is desirable that she acquire expertise in handling various technological devices. Videotaping, which is viewed presently as the developers instructional device (i.e. confrontation exercises) within the Language Counsellor training program, can be turned into a skill which she can use herself. Other audio visual materials will also be used in this manner.

On completion of her training, the Language Counsellor should be able to make cassettes for tape recorders which give to particular mothers and their children exercises carefully designed especially for them to carry out together.

When the Language Counsellor returns to a college setting for the advanced work which will give her a bachelor's degree, she will, as previously stated, be taking courses from the general offering of the institution which she attends. A special seminar should be required of each trainee which would meet two or three times a week to interrelate information accrued from other disciplines to her own expertise. Materials for this seminar would grow out of the combined experiences of those present at its sessions. It would also be expected that a graduate would have shown her competency by creating a sequence of activities beyond those originally included in the programs for an age group and function of speech of her own choice. In this way the substance of the program becomes self-

perpetrating, initially through guided instruction and later through individual enterprise. Although there is a risk involved of lack of consistency through a many faceted expansion, this ultimately seems less of an evil than a program which moves into the future frozen in the past. Even this loss of consistency can be avoided to some extent as supervisors, trained to the Master's level or beyond, take responsibility for ongoing programs.

Students would work in various departments of particular interest, but would also participate in seminars intended to increase proficiency in diagnosis, evaluation, and program design. While some aspects of these materials can be anticipated in advance of the initial class, a model for dissemination will make its first appearance with the first alumnae.

At all three training stages, packaged course components are to be self-contained. This means that a group wishing to use the program could do so competently without the expenditure of large sums on consultants sent from the educational developers. However, should unique problems arise with implementation of the program, or should in-service consultation be desired, consultants would be available. The objective of the originators is to make such service optional rather than a necessity.

V. RESEARCH & EVALUATION

It is intended within the scope of this project to maintain a point-counter-point harmony between aspects of research and development, creating by this approach a program unit especially suited to the work of a regional laboratory. In this instance research is typified by the formulation of the tests of language acquisition, growing from extensive observation of children's speech, while the developmental facets are the construction of the LARC curriculum and the training of the language counsellor. The student of the new career will help to gather the data upon which the test is based, while the test itself will aid in framing techniques utilized by the language counsellor in her contacts with children.

Research will also be necessary to evaluate the effectiveness of both the LARC curriculum and the training program for the language nurse.

A. Language Acquisition Test

The fact must be faced that as far back as educational history extends, programs for teaching children how to read have been constructed without knowledge of the processes and norms which comprise language development. Therefore, little surprise should be engendered by the continued impotence to remedy the reading impairment of the child in a low income

neighborhood, the recent critique of Headstart, the theoretical questions raised by Jensen's hypotheses concerning heritability and levels of intelligence, or Martin Deutsch's position of the "cumulative deficit" (1968). Only recently has a researcher, Edward Coleman, begun studying letters and phonemes which are easiest to discriminate and which generate the largest number of easily learned words.

The construction of a series of measures of early language measures acquisition is viewed as an essential foundation for the curriculum here described. Areas covered by these measures would include: vocabulary range (dictionary size) semantic structure (subtle distinctions in meaning shown by the use of alternative constructions), phonetics, morphology (use of inflections, etc.), syntactic structures (subordination, mode, etc.), word order and delition (prenominalization, abbreviation, repetition, etc.). The administration of tests would be facilitated through use of a tape recorder in the guise of a toy telephone. This would allow for presentation of items in a standard dialect or regional speech, as deemed desirable in a particular locale and would permit the recording of children's responses for further research purposes. These measures would also attempt to delineate between maturational and experimental factors in language development. Scoring could be done locally or sent to a central office for assessment, with a report to be

returned to the administrative locus. Included in this last alternative is the possibility of charging for the service of preparing diagnostic profiles.

A tentative research design for the development of language acquisition measures is as follows:

At the beginning of the project, groups of thirty subjects will be selected in a given locale. They will be approximately nine months of age, equally divided as to sex and equally distributed among the four categories:

Black: middle SES and low SES; and

White: middle SES and low SES.

These same subjects will be studied for (N=120) the duration of the project, providing the longitudinal dimension for the selected indices of language development. Attrition is expected to be cumulative through the five year period to about 25 percent.

At the beginning of the second year, a similar sample will be selected from another community, adding a cross-sectional dimension, for the revision of findings collected during the first and subsequent years.

Thus, each set of measures for language acquisition will be drawn from one sample during one year, and test for applicability to a second sample during the following year. In addition, preliminary checks on reliability and validity of the measures may be obtained from language counsellor trainees,

who will be working with children of the same ages in other settings.

Each child in the experimental sample will be visited monthly for a three-hour period by a linguist, to gather relevant language samples and to try out new measures of language acquisition as they are constructed.

As previously stated, wider norming and ultimate dissemination of the measures of language acquisition will be carried out, with the scales placed on tapes. Use of a tape recorder in the guide of a toy telephone facilitates the standardization of administration procedures, as it permits control of directions given to a child and of the examiner's patterns of speech. Collecting children's responses on tape permits continued reassessment in the light of increasing information. It also provides the beginnings of a data bank of language samples to be utilized in other research.

B. Evaluation of LARC Program

It is expected that researchers will investigate the very premises on which the program is based as well as the content, techniques, and effects of substantive and methodological components upon the language of participating mothers and children. Such evaluation should be of two kinds:

1. Continuous sampling of activity and training components. This will provide feedback as a guide for the extension and revision of programmatic units. This is viewed as a continuous process for the duration of project construction.
2. Summational examination of the differential use of language between children who have taken part in the program and their selected controls. This is seen as an adaptation of the traditional pre and post testing paradigm used to assess the worth of new educational programs. Of prime import here would be a longitudinal inquiry into how participating children from populations with a high expectency of academic failure will perform in school. In this regard one will wish to follow every clue relating early verbal performance to skills connected with successful reading.

Other questions for long range study include detailed investigation of the functions of young children's speech, with attention given to their possible ethnic distribution, their relation to lexicons, and to structures of utterances.

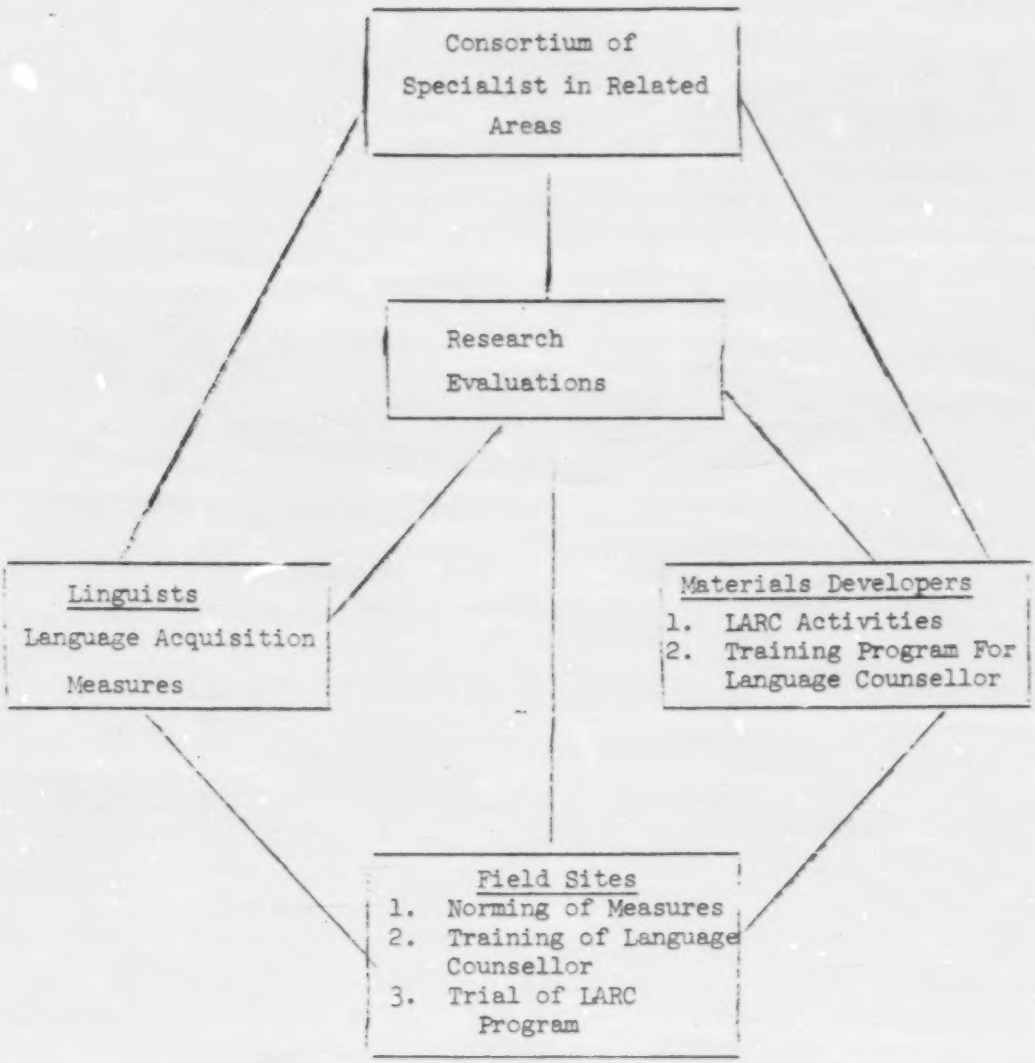
If the program achieves its goal of expanding functions of speech, one will wish to know if successful intervention spreads to other cognitive areas and how the effects of the program are made manifest. Since training in skills such as conservation or concept formation has not to date been shown to enlarge the scope of language, reciprocal data on what language intervention does and does not do will given parameters on the most concise range of topics for other pre-school curricula.

Short term inquiry will also be helpful to determine the appropriateness of the age based sequences of LARC activities, the comparative effectiveness of presentation of the LARC curriculum on a self-continued package or by the language counsellor, and the adequacy of the Language Nurses' training for the role she assumes. Also of value to the construction of the program will be learning how mothers respond to specific activities and which procedures are most amendable to their variation and enlargement.

Because of the complexity of the program here presented with its three products (curriculum, career, and test), it is suggested that a consortium of specialists in related areas be established as an advisory body for implementation of the project.

Not only does LARC utilize research and development components but there is also a service element in the duties of the language

counsellor. As yet, no smooth course has been discovered for moving from research to development or from development to service. As well coordinated group of consultants with differing experiences in these three professional endeavors could provide information to articulate the processes involved. A working model for procedures and personnel is presented in the following diagram:


Consortium of Specialist in Related Areas
Research Evaluations
Linguists
Language Acquisition Measures
Materials Developers
1. LARC Activities
2. Training Program For Language Counsellor
Field Sites
1. Norming of Measures
2. Training of Language Counsellor
3. Trial of LARC Program

VI. TIMETABLE AND BUDGET

A. Timetable - Five Year Projection

Year I

A. Development of Language Counsellor Training Program, Part I Personnel required:two writers, full time; ten consultants for five days each, to complete sections of training manual.

B. Development of Language Acquisition Measures (Ages 9 - 21 months). Personnel required: three linguists (could be graduate students) full time; one linguist (Ph. D) coordinator, three-quarters time.

Year II

A. Development of Language Counsellor Training Program, Part II, Personnel required: two writers, full time; five consultants for fifteen days, to complete sections of training manual.

B. Revision and Field Testing of Language Counsellor Training Program, Part I, Personnel required: one writer, full time; one full-time coordinator and assistant for every 10 language counsellor trainees.

C. Field Test and Revision of Language Acquisition Measures (Ages 9 - 21 months) . Personnel required: two student linguists, full time; one coordinator one-quarter time.

D. Development of Language Acquisition Measures (Ages 22 - 34 months). Personnel required: three student linguists, full time; one linguist, coordinator, and three-quarters time.

E. Development of Home Curriculum (Ages 9 - 21 months). Personnel required: two writers, full time.

Year III

A. Revision and Field Testing of Language Counsellor Training Program, Part III. Personnel required: one writer, full time; one full time coordinator and assistant, for every 10 language counsellor trainees.

B. Field testing and Revision of Language Acquisition Measures (Ages 22 - 34 months). Personnel required: three students linguists, full time; one linguist, coordinator, three-quarters time.

C. Development of Language Acquisition Measures (Ages 34 - 47 months). Personnel required: three student linguists, full time; one linguist, coordinator, three-quarters time.

D. Field testing and Revision of Home Curriculum (Ages 9 - 21 months). Personnel required: two persons both observing in the field and writing, full-time.

E. Development of Home Curriculum (Ages 22 - 34 months) Personnel required: two writers, full time.

Year IV

A. Revision of Experimental Edition of Language Counsellor Training Program, Parts I and II. Personnel required: one person, full-time.

B. Revision of Language Acquisition Measures (Ages 9 - 47 months). Personnel required: two student linguists, full time; one coordinator, full time.

C. Revision of Home Curriculum (Ages 9 - 34 months) Personnel required: two writers, full-time.

D. Development of Home Curriculum (Ages 35-47 months) Personnel required: two writers, full time.

Year V

A. Final Revision and Implementation of Language Counsellor Training Program Parts I and II. Personnel required: one writer, full-time.

B. Final Revision and Implementation of Language Acquisition Measures. Personnel required: three student linguists, full-time; one linguist coordinator, full-time.

C. Final Revision and Implementation of Home Curriculum (Ages 9 - 47 months). Personnel required: two writers, full-time.

D. Development of Home Curriculum (Ages 48 - 60 months). Personnel required: two writers, full-time. (revision to take place in Year VI.)

NOTE: In addition to personnel listed above, one full-time coordinator for the project is needed for the five year period of development.

PERSONNEL NEEDED - FIVE YEARS	YEARS I	II	III	IV	V
Principal Developers	2	2	2	2	2
Language Counsellor Trainees	(10)	10	10	10	10
Language Counsellor Coordinator	(1)	1	1	1	1
Language Counsellor Assistant Coordinator	(1)	1	1	1	1
Consultant-Writers	10	5			
Student Linguists	3	5	6	2	3
Linguist (Ph. D)	1	1	2	1	1
Writers-Observers		3	3	3	1

B. BUDGET - ONE YEAR

1.	Salaries to principal developers (2)	$25,000
2.	Stipend and fringe benefits for (10) ($3,000 each) ten language counsellor trainees	30,000
3.	Coordinator and full-time instructor for trainees	10,000
4.	One trained language counsellor or assistant to coordinator	7,000
5.	Toys and equipment for trainees (tape recorders)	2,000
6.	Preparation of curriculum (Manual of readings) - 10 consultant writers	10,000
7.	Preparation of five 8 mm film (8 - 10 minutes) modules for usage by language nurse (1 film consultant and costs of making films).	20,000
8.	Consultation to develop tests of language acquisition (3 consultant-writers)	25,000
9.	Maintenance and transportation	15,000
		$139,000

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